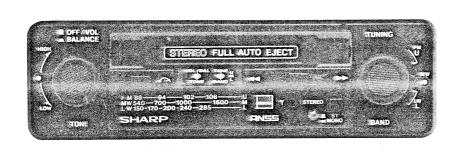


# Service Manual





FM  $2.5\mu V$ 

# Solid State In-dash Type Cassette Car Stereo Player with LW/MW/FM/FM Stereo Radio

## MODEL RG-5800H/RG-5800E

"In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used."

#### **SPECIFICATIONS**

GENERAL	
Type Solid State In-dash Type 4-Track 2-	Using tape Philips standard compact casset te tape
channel Full Auto Stop/Auto Eject	Tape speed 4.75 cm/sec.
Cassette Car Stereo Player with	Wow and flutter 0.3% (DIN 45511)
built-in LW/MW/FM/FM STEREO 3-	Frequency response . 50Hz ~ 10kHz/-6dB
band Radio	Fast forward/Rewind
Power source 12 V (for negative earthing car only)	time 120 seconds (@ C-60 cassette tape)
Output impedance 4 ohms/channel	Motor D.C. motor with mechanical povernor
Semiconductors 18-transistor (1-FET), 14 diode (1-	
LED) and 5-IC (integrated circuit)	RADIO SECTION
Output power 8 + 8 W (maximum power)	Frequency range LW 150 ~ 285kHz
5 W + 5 W (at 10% distortion)	MW 520 $\sim$ 1,620kHz
S/N 54 dB	FM 87.6 ~ 108MHz
Dimensions 178 (W) x 130 (D) x 44 (H) mm	IF LW/MW 452kHz
Weight 1.3 kg	FM 10.7MHz
	Sensitivity LW $400\mu V/20dB$
TAPE PLAYER SECTION	MW $40\mu\text{V}/20\text{dB}$

Playback system ... 4-track, 2-channel Stereo

SHARP CORPORATION OSAKA, JAPAN

#### PARTS LAYOUT

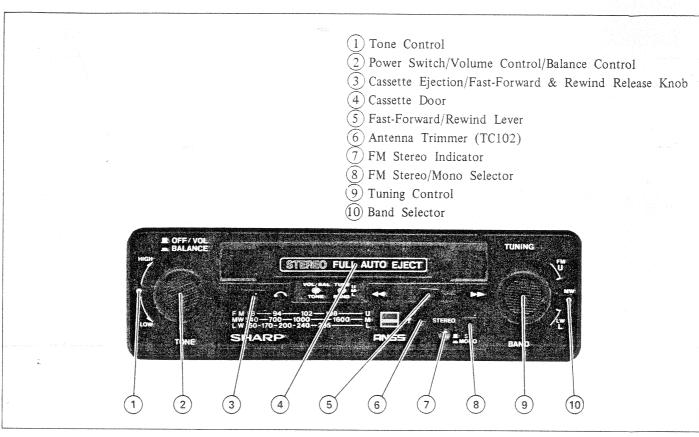


Figure 1 FRONT PARTS LAYOUT

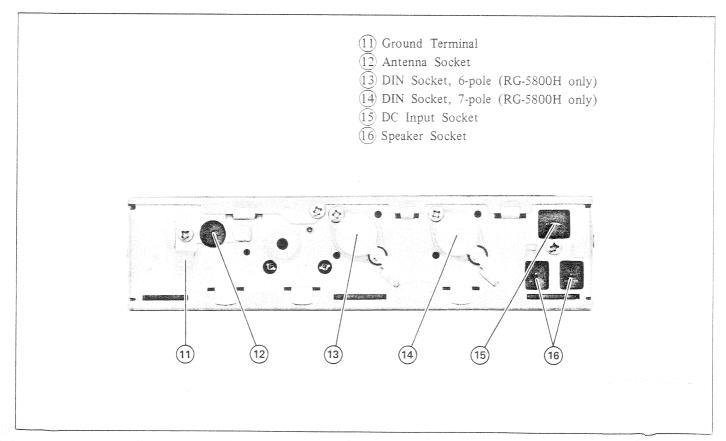
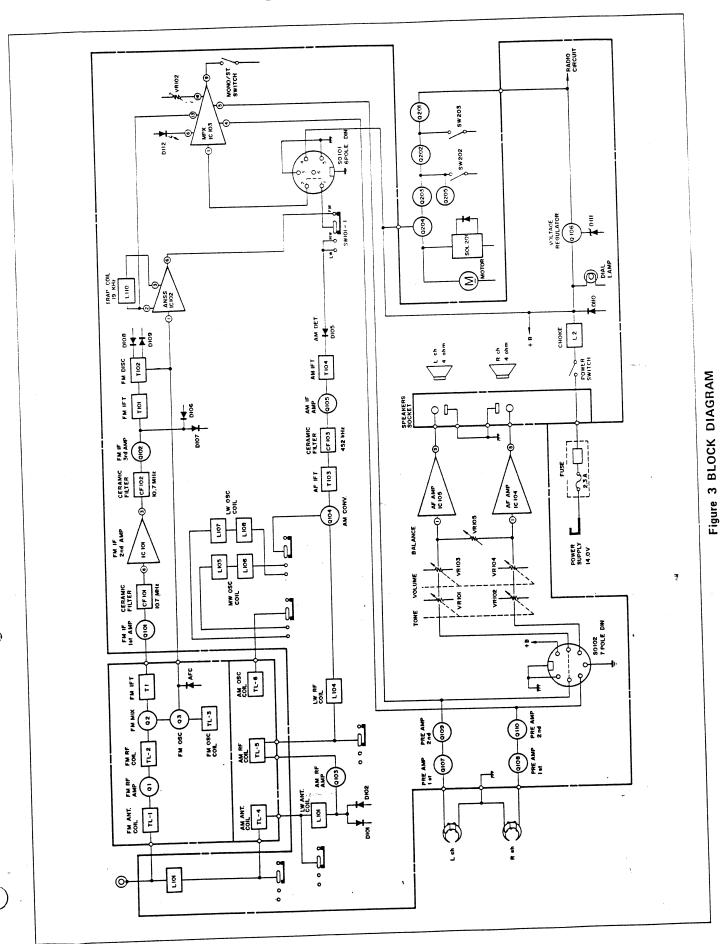


Figure 2 REAR PARTS LAYOUT

### BLOCK DIAGRAM



## GENERAL ALIGNMENT INSTRUCTIONS

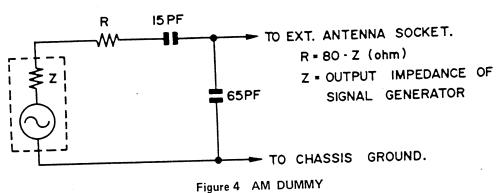
Should it become necessary at any time to check the alignment of this receiver, proceed as follows;

- 1) Connect an output meter across the speaker voice coil lugs.
- 2) Set the volume control at maximum.
- 3) Attenuate the signals from the generator enough to swing the most sensitive range of the output meter.
- 4) Use a non-metallic alignment tool.
- 5) Repeat adjustments to insure good results.

### LW/MW ALIGNMENT CHART

Set the band selector switch at "MW" or "LW" position.

- 1			switch at "MW" or	ERATOR	RECI	IVER	. D. W. ICTNAFAIT	
TEP	BAND	TEST STAGE	CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS	ADJUSTMENT	
1	MW		Connect signal genera- tor through a dummy to the antenna socket. Ground lead to the receiver chassis. (Refer to Figure 4)	Exactly 452kHz (400Hz, 30%, AM modulated)	High end of dial (minimum inductance)	Adjust for maximum output on speaker voice coil lugs.	T103 T104	
2	MW	IF	Repeat until no further	improvement can be	made.	l o etcm 1	Adjust the MW oscillator	
	""		Same as step 1.	Exactly 515kHz (400Hz, 30%, AM modulated)	Low end of dial (maximum inductance)	Same as step 1.	coil L106.	
3	MW	Band Coverage	Same as step 1.	Exactly 1650kHz (400Hz, 30%, AM modulated)	High end of dial (minimum inductance)	Same as step 1.	Adjust the MW oscillato trimmer TC104.	
4	MW	Tracking	Same as step 1.	Exactly 1400kHz (400Hz, 30%, AM modulated)	1400kHz.	Same as step 1.	Adjust the MW antenna trimmer TC102, and then adjust the MW RF trimmer TC103.	
	1		Repeat steps 3 and 4	until no further impre	ovement can be made			
5	MW		Same as step 1.	Exactly 145kHz (400Hz, 30%, AM modulated)	Low end of dial (maximum inductance)	Same as step 1.	Adjust the LW oscillate coil L108	
6	LW	Band Coverage		Coverage Same as step 1. Exactl (400H	Exactly 310kHz (400Hz, 30%, AM modulated)	High end of dial (minimum inductance)	Same as step 1.	Adjust the LW oscillato trimmer TC105
			Same as step 1.	Exactly 160kHz (400Hz, 30%, AM modulated)	160kHz.	Same as step 1.	Adjust the LW antenna trimmer TC101.	
7	LW	V Tracking	Same as step 1.	Exactly 260kHz (400Hz, 30%, AM modulated)	260kHz.	Same as step 1.	Adjust the LW antennicoil L102, and then adjust the LW RF coil L104.	
-	R LV	V	Repeat steps 6 and	7 until no further imp	rovement can be made	le.		



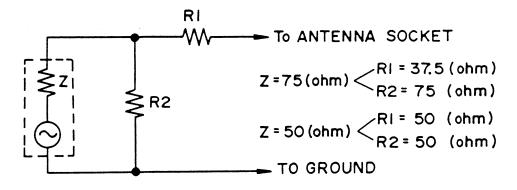
#### FM ALIGNMENT CHART

Set the band selector switch at "FM" position.

	TECT	SIGNAL GENER	ATOR	REC		
STEP	TEST STAGE	CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING	REMARKS	ADJUSTMENT
1	IF (NOTE B)	Connect signal generator through a .022MFD capacitor to antenna socket (SO101).  Connect generator ground lead to the receiver chassis.	Exactly 10.7MHz (400Hz, 30%, FM modulated)	Low end of dial. (maximum inductance)	Connect VTVM between test point TP102 and chassis ground.	Detune T102. Tune T1, and T101.
2	Ratio Detector	Same as step 1.	Exactly 10.7MHz (unmodulated)	Same as step 1.	See NOTE A.	See NOTE A.
3	Repeat ster	os 1 until no further improvement	can be made.			
4	Band Coverage	Connect signal generator through a dummy including output impedance of signal generator to the car antenna socket (SO101) Ground lead of generator connected to the receiver chassis. (Refer to Figure 5)	Exactly 87.2MHz (400Hz, 30%, FM modulated)	Same as step 1.	Adjust for maximum output at speaker voice coil.	Oscillator trimmer TC2 .
5	Tracking	Same as step 4.	Exactly 88MHz (400Hz, 30%, FM modulated)	88MHz	Same as step 4.	RF trimmer TC1.
6	Repeat step	os 4 and 5 until no further improve	ement can be made.			L

#### NOTE A

- 1) Connect VTVM (0.1 volt range D.C. Scale between test point TP102 and chassis ground.l.
- 2) Adjust T102 for 0 volt on VTVM.
- 3) Change signal generator frequency 10.7MHz + 100kHz and -100kHz approximately.
- 4) Adjust T101 for balanced peaks. Peak separation should be approximately 200kHz.



Z=OUTPUT IMPEDANCE OF SIGNAL GENERATOR

Figure 5 FM DUMMY

#### NOTE B

Five kinds of ceramic filter (CF101, CF-202) are available for this set. The difference of central frequency from each other can be known by the color indication. The table below shows such a difference of IF and S curve, depending upon the color indications of the ceramic filter (CF101, CF102).

	D	Black	10.64MHz ± 30kHz
0 . 1	B Blue		10.67MHz ± 30kHz
Central	A	Red	10.70MHz ± 30kHz
- Frequency	С	Orange	10.73MHz ± 30kHz
	E	White	10.76MHz ± 30kHz

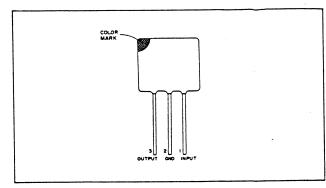


Figure 6

For their employment, it is required to use two ceramic filters of same type.

#### FM STEREO ALIGNMENT

Set the band selector switch at "FM" position and Stereo/mono Selector switch at "STEREO" position.

STEP	SIGNAL GENERATOR			RECEIVER	METER	ADJUST- MENT
	CONNECTION TO RECEIVER	INPUT SIGNAL FREQUENCY	DIAL SETTING REMARKS		CONNECTION	
1			98MHz	Adjust so that the frequency becomes 19.0kHz. (In case an oscilloscope is connected to the test point TP101, adjust the signals to be 19kHz by using Lissajou's wave-form).	Connect the frequency counter (or oscilloscope) through a 100K ohm resistor to TP101 ( 12 pin of IC103).	VR102

If without the frequency counter, proceed with the alignment as follows. While receiving a FM stereo signal, turn the VR102 until the P.L.L. will be locked (when it is locked, the stereo indicator will be lit). Then, reversely turn the VR102 halfway and fix it.

#### ANSS ADJUSTMENT

(Pins 1, 6 and 15 described below are of IC102.)

- 1. Set the band selector switch at "FM" position.
- 2. Apply a 19 kHz signal of 30 mV to pin 1.
- 3. Connect a VTVM and/or an oscilloscope to pin 6.
- 4. Adjust L110 for minimum output at pin 6.
- 5. Then, apply a 1 kHz signal of 100 mV to pin 1.
- 6. Make sure that there is no output at pin 6, applying a 100 kHz signal of 50 mV further to pin 15.
- 7. Next, make sure that a 1 kHz signal of 100 mV appears at pin 6, connecting pin 15 to earthe.

#### THE INSTRUCTION OF FREQUENCY ADJUSTMENT

In order to comply with Pfg. Nr. 358/1970, please fix the low end of dial frequency (87.5 MHz) and the high end of dal frequency (107.9 MHz) on FM band, by adjusting oscillation trimmer (TC2) and oscillation coil (L4), respectively, as illustrated in Figure 7.

#### **HEAD AZIMUTH ADJUSTMENT** (Refer to Figure 7)

Standard Test Tape to be applied: Philips HU-71512 or the equivalent (TEAC MTT-113, VICTOR VTT-601).

- (1) Set the Player Unit on.
- (2) Turn the azimuth adjusting screw until the output of the test tape (6.3kHz) is boosted up to the maximum. Caution: After completion of the adjustment, be sure to lock the adjusting screw in place, using glyptal or glue.

# L4 **HEAD AZIMUTH ADJUSTING SCREW** L104 L102 TC101 T103 T101 **VR102** T102 L106 L108 TC105 T104 TC2 TC1 TC104 T1 TC103 SO101

Figure 7 ALIGNMENT POINTS

#### **SUMMARY**

Electrical interferences generated by combustion engines used in motor-cars are necessary to be suppressed to make listening to FM broadcastings possible. An effective way to suppress interferences produced by its own car and those of others received via the antenna is to apply a kind of noise gating for the output signal of the FM

demodulator. Since the mentioned interferences have a frequency spectrum upto several hundreds of kHz being easily reproduced by the FM demodulator there is sufficient signal available beyond 53kHz to drive this gating circuit. Based upon these principles the ANSS has been devoloped.

#### INTRODUCTION

In the FM car radio, pulse noise received via the antenna becomes unpleasant noise that interferes with the happy FM listening, passing the circuits between the antenna and the speaker. The ANSS is a device that can automatically remove such pulse noises from the incoming signals, so only the desired signals will be obtained. Being detected at the FM detector, both the desired signal and pulse noise, caught by the antenna, are superposed each other as shown in Figure 8. Then they are applied to the ANSS circuit where only the desired signal is developed since the noisy one is removed.

The bandwidth of the ANSS, necessary for a good stereo signal, has to be about:

38 kHz + 15 kHz = 53kHz. (stereo subcarrier) (Upper side band channel)

For stereo signal reception, the arriving signals are applied to the gate circuit of the ANSS, in order to prevent the pilot signal from undergoing amplitude modulation (which causes noisy sound through the succeeding circuits), this pilot signal is first supplied to the 19 kHz trap filter, located prior to the gate circuit, where it is removed and only the audio signal can appear at the ANSS circuit then to be applied to the stereo multiplex circuit.

In addition, before being supplied to the 19kHz trap filter, a part of the stereo pilot signal is also applied to the VCO circuit, a part of the stereo multiplex circuit. Since the VCO circuit is of PLL system, if the pilot signal enter the VCO circuit, the PLL becomes completely locked so as to eliminate any possibility of noise occurrence in the stereo multiplex circuit due to the noise entered together with the pilot signal. In this way pulse noise caught by the antenna is eliminated.

Another feature of this system is that in FM stereo reception, the signal to noise ratio is improved, because

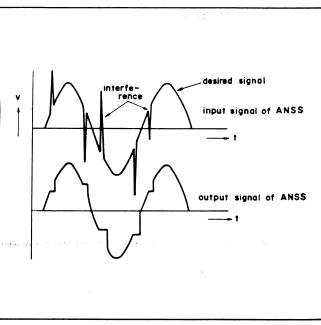


Figure 8

the stereo pilot signal has no possibility of mixing in the audio signal produced, being removed by the 19 kHz trap filter.

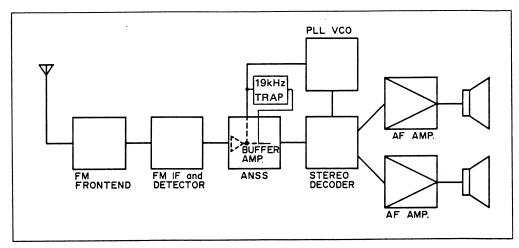


Figure 9

#### **BLOCK DIAGRAM**

The block diagram is shown in Fig. 10.

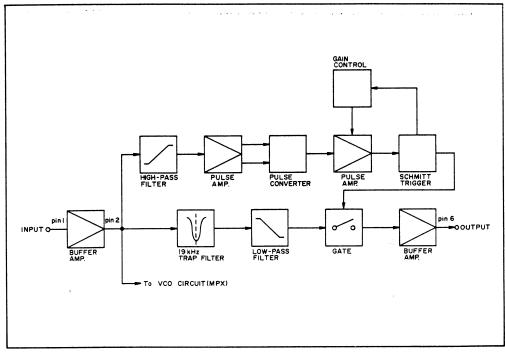


Figure 10

#### Explanation of the block diagram

noise are appeared at the pin 2 via the buffer amplifier. to the gate circuit of the ANSS, which will be turned off. Then, they are divided into the two, one to be applied to Also, the ANSS is equipped with the gain control circuit the high-pass filter side and another to the low-pass filter that will control the input signal of the Schmitt trigger, if side.

In the high-pass filter, only pulse noise is picked out from prevent the gate circuit from turning off. the incoming signal, and this noise is amplified by the pulse amplifier. The noise thus amplified is transferred to the pulse converter where the negative pulse is converted to positive one to be supplied to the pulse amplifier where it is formed a strong signal enough to activate the Schmitt trigger.

Input signals at the pin 1, both the desired signal and pulse Coming out of the Schmitt trigger, the signal is coupled a great amount of the continual pulse noises arrived, and

> Meanwhile, in the low-pass filter side, the arriving signal is first applied to the 19 kHz trap filter where the stereo pilot signal is removed, and the remaining signal is coupled to the low-pass filter. The signal coming out of the low-pass filter, which nas frequencies lower than 53 kHz, is then applied to the gate circuit. In this gate circuit, pulse noise,

if being included in the imput signal, will be got rid of and so only the desired signal will be developed.

However, being turned off, the gate circuit has no output. To prevent this, the ANSS is equipped with such a circuit that maintains output at the level just before the gate circuit is turned off. For this reason, there will be no secondary noise appearance caused by switching of the gate

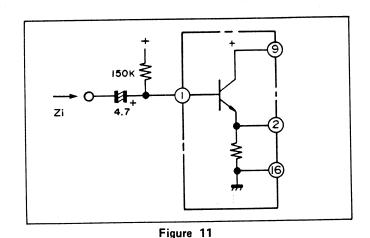
It is noted that a part of the stereo pilot signal is, without entering the 19 kHz trap filter, coupled to the VCO circuit (of the stereo multiplex circuit) to drive.

#### DESCRIPTION OF THE CIRCUIT

#### Input stage

The input stage consists of a simple emitter follower, see Fig. 11.

This stage has been added to the circuit in order to avoid an influence of the input impedance of the L.P. and H.P. filters on the output of the FM detector and reversed. To be sure that the circuit works correctly, the DC voltage at pin 1 needs to be  $0.4 \times V_9$ - $V_{16}$  (0.4 x supply voltage). The input impedance at 1 kHz: |Zi| ≥ 70 K ohms.



The low-pass filter (delay line)

To be sure of a good signal handling of the desired signal this filter has to meet next requirements.

- a) the delay time has to be at least 3  $\mu$ sec.
- b) the amplitude characteristic has to be as flat as possible in the pass-band.
- c) the phase behaviour has to be linear.
- d) the distortion of the desired information at the output must be as low as possible.

In order to meet these requirements use is made of a 4th order Butterworth filter realised by an active RC circuit. (see Fig. 12).

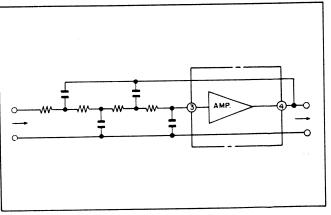


Figure 12

#### Gate circuit and output amplifier

The circuit is give in Fig. 13.

The point, indicated with P, is connected to the positive output of the Schmitt-trigger.

If there is a positive pulse at P then Qc becomes conducting and takes away the driving current for Qb. At the same time the base voltage of Qe will be kept constant by the RC circuit connected to pin 5.

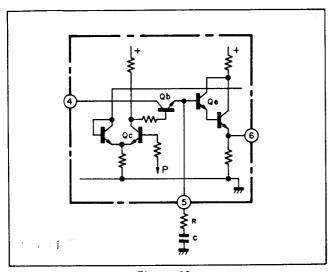


Figure 13

#### High pass filter

In order to detect the interferences out of the input signal a high pass filter is used.

In practice one wants to suppress as much interferences as possible in order to get a "clean" output signal. The theorical curve of the H.P. filter has been given in Fig. 15.

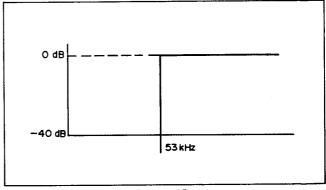


Figure 15

A practical approximation of this curve can be achieved by a 4th order Chebyshev filter at which for car radio applications -3dB can be chosen at 91kHz.

To get a steep slope an extra R and C are added circuit.

#### 19 kHz filter

During suppression but without this filter the 19kHz signal will look like Fig. 14.

To be sure of no audible low-frequency component, the voltage during suppression needs to be zero. (See gap Fig. 14) However this happens only very sporadic so that filtering out of the undesired low frequency component is necessary, otherwise this low frequency component breaks through to the audio part via the MW-channel. Thus a 19kHz filter is added to the circuit.

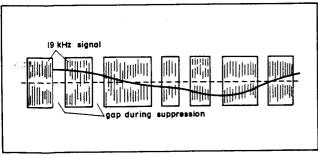


Figure 14

#### Gain control

The circuit is give in Fig. 16.

To be sure of an audible signal during a too high repetition rate of the interference pulses and/or a too intensive noise it is necessary to reduce the repetition rate of the suppression.

From the Schmitt-trigger the negative output pulse are fed to the integrating network connected to pin 12.

If  $V_C$ " which is V9-12 becomes  $\geq$   $V_{BEQ8}$  them the gain of the pulse amplifier will be reduced.

In case of noise, at which normally the "interference spikes" are very close to each other, it is better to build-up the voltage across C" directly, because during one suppression time there are a lot of noise spikes.

This information for the gain control is lost if the megative output of Schmitt-trigger is used.

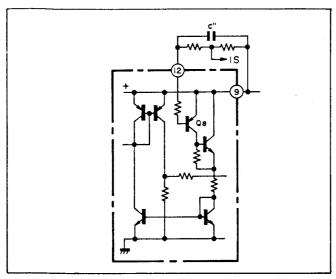


Figure 16

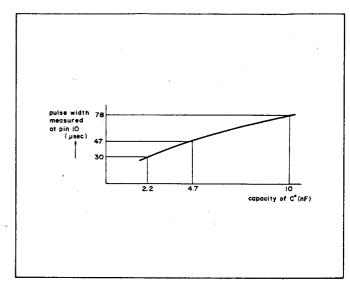


Figure 18

#### Schmitt-trigger

The circuit is shown in Fig. 17.

The positive output is used for driving the gate circuit while the negative output is fed to the gain control.

The pulse width of the pulses delivered by the Schmitt-trigger can be controlled by an RC network at pin 11 of Fig. 17.

The pulse width as function of the value of the  $C^{\circ}$  connected at pin 11 while the  $R^{\circ}$  is kept constant at 6.8K, is given in Fig. 18.

For measurements the pulse at the input of the ANSS (pin 1) has a pulse width of  $10 \, \mu \text{sec.}$ , a rise time of 6 nsec. and a pulse hight of  $0.1 \, \text{V}$ .

To ensure proper operation of the Schmitt trigger for various  $R^{\circ}C^{\circ}$  combinations it is advised to measure the pulse at pin 1 and pin 10.

The depicted signals should have a shape as shown in Fig. 19.

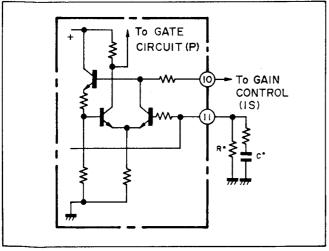


Figure 17

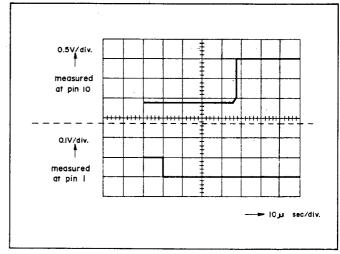


Figure 19

#### MECHANICAL ADJUSTMENT

#### FLYWHEEL THRUST CLEARANCE ADJUSTMENT (Refer to Figure 20)

Slowly tighten the screw for adjusting the flywheel thrust clearance until the thrust clearance becomes 0 (zero) and loosen the screw by  $1/2 \sim 1$  turn from this point. Since screw's pitch is  $0.5 \,\mathrm{mm}$ , thrust clearance of  $0.1 \sim 0.3 \,\mathrm{mm}$  is produced.

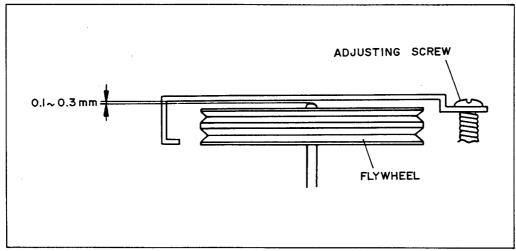


Figure 20

#### TIMING ADJUSTMENT OF RADIO/TAPE SELECTOR SWITCH (Refer to Figure 21)

At the moment the radio/tape selector switch turns to the tape position (and the motor starts to rotate), the gap between the pinch roller and the capstan shaft should be  $0 \sim 0.2$  mm. If the value is not satisfied, adjust the pushing arm by changing the setting position and/or bending.

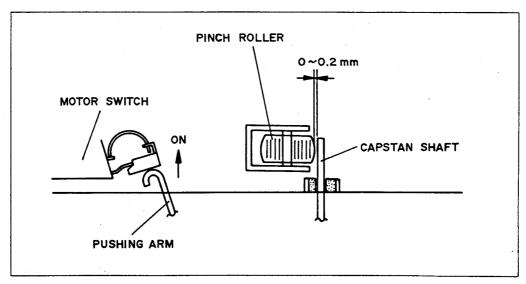


Figure 21

#### PINCH ROLLER PRESSURE ADJUSTMENT (Refer to Figure 22)

- 1. With power supply turned on, push the point (A) with a tension gauge to make the pinch roller apart from the capstan shaft. Then, gradually release the tension gauge and read its value when the pressure roller starts to rotate.
- It is normal that the tension gauge reads 320 ~ 380g. If the above value is not satisfied, change the setting position of Pinch Roller Spring.

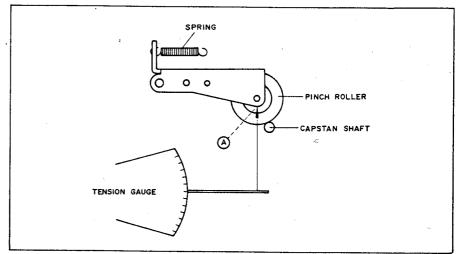


Figure 22

#### TORQUE CHECK (Refer to Figure 23)

- 1. Set the torque measuring reel to the turntable (the take-up side at play or fast forward mode and the supply side at rewind mode).
- 2. Then, rotate the reel in the same direction as for turntable and read the torque value when the pointer is stabilized.

Mode	Torque Value
Play	35 – 55 gr.cm
Fast Forward	More than 70 gr.cm
Rewind	More than 70 gr.cm

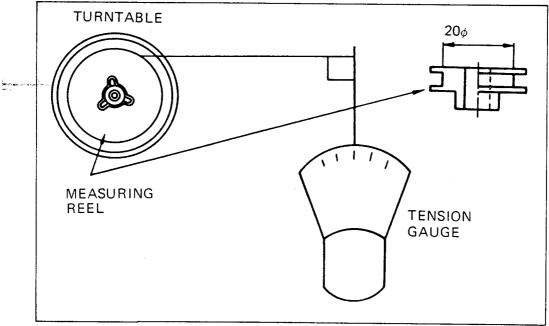


Figure 23

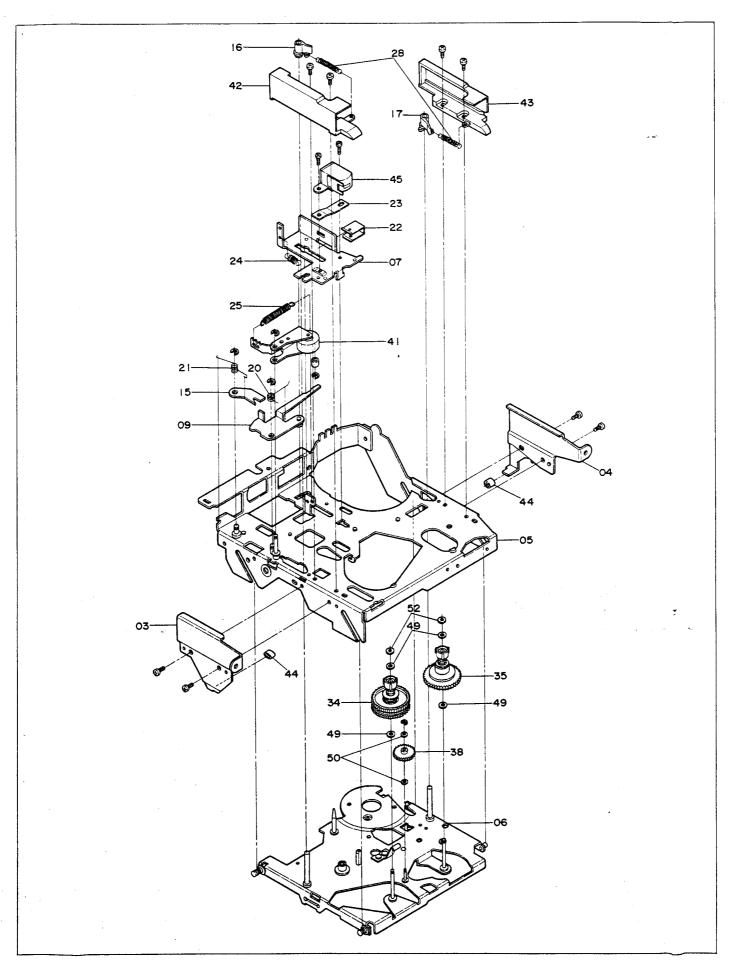


Figure 24 MECHANISM EXPLODED VIEW (UPPER SIDE)

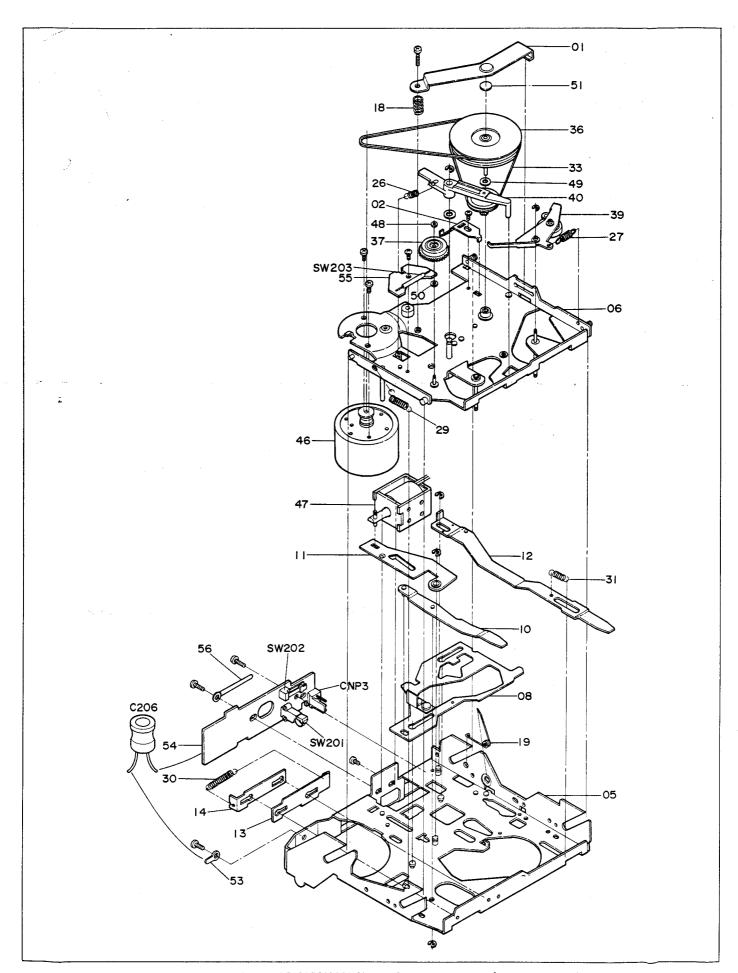


Figure 25 MECHANISM EXPLODED VIEW (LOWER SIDE)

Figure 26 CABINET EXPLODED VIEW

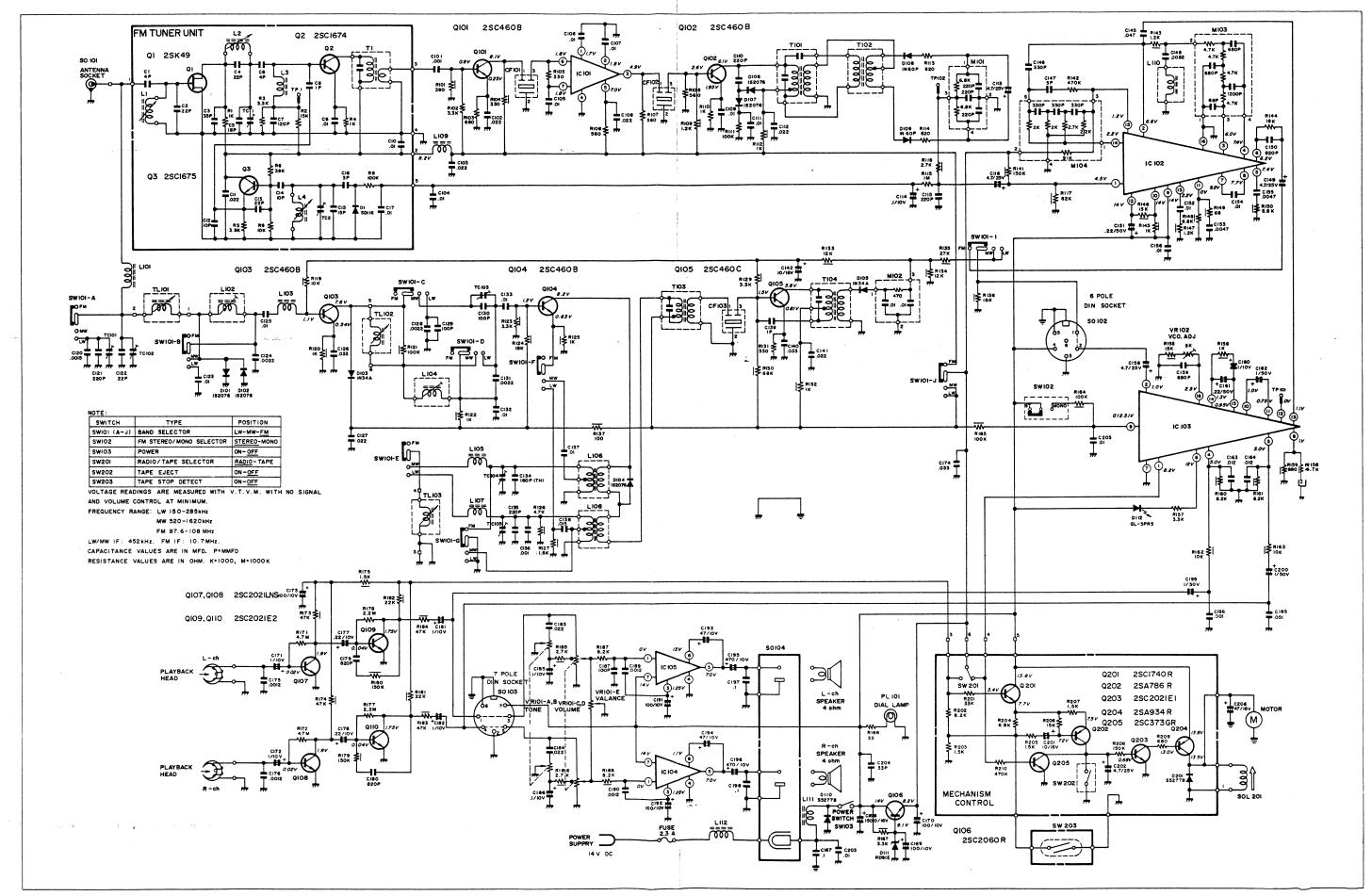


Figure 27 SCHEMATIC DIAGRAM (RG-5800H)

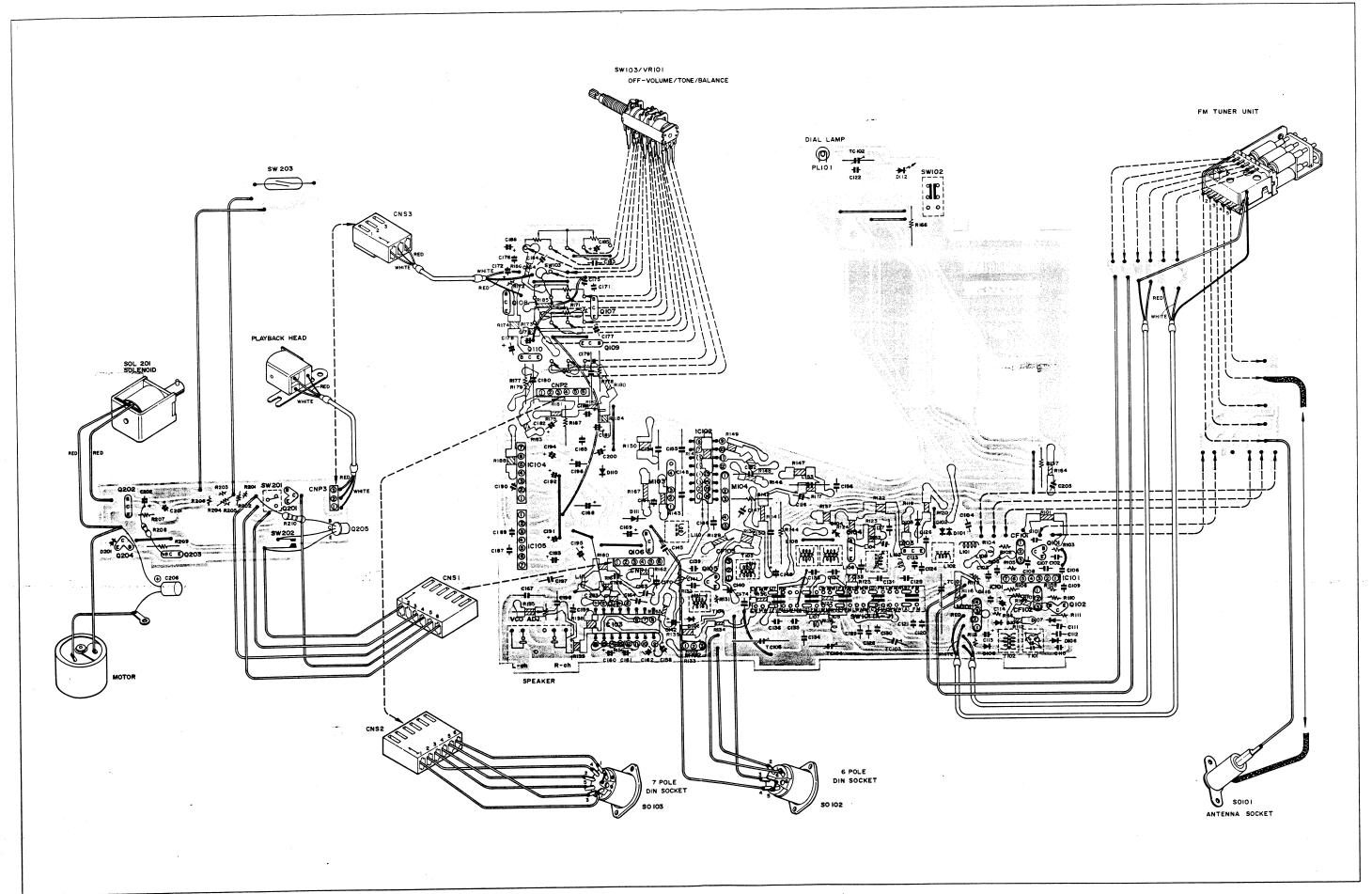


Figure 28 WIRING CONNECTIONS (RG-5800H)

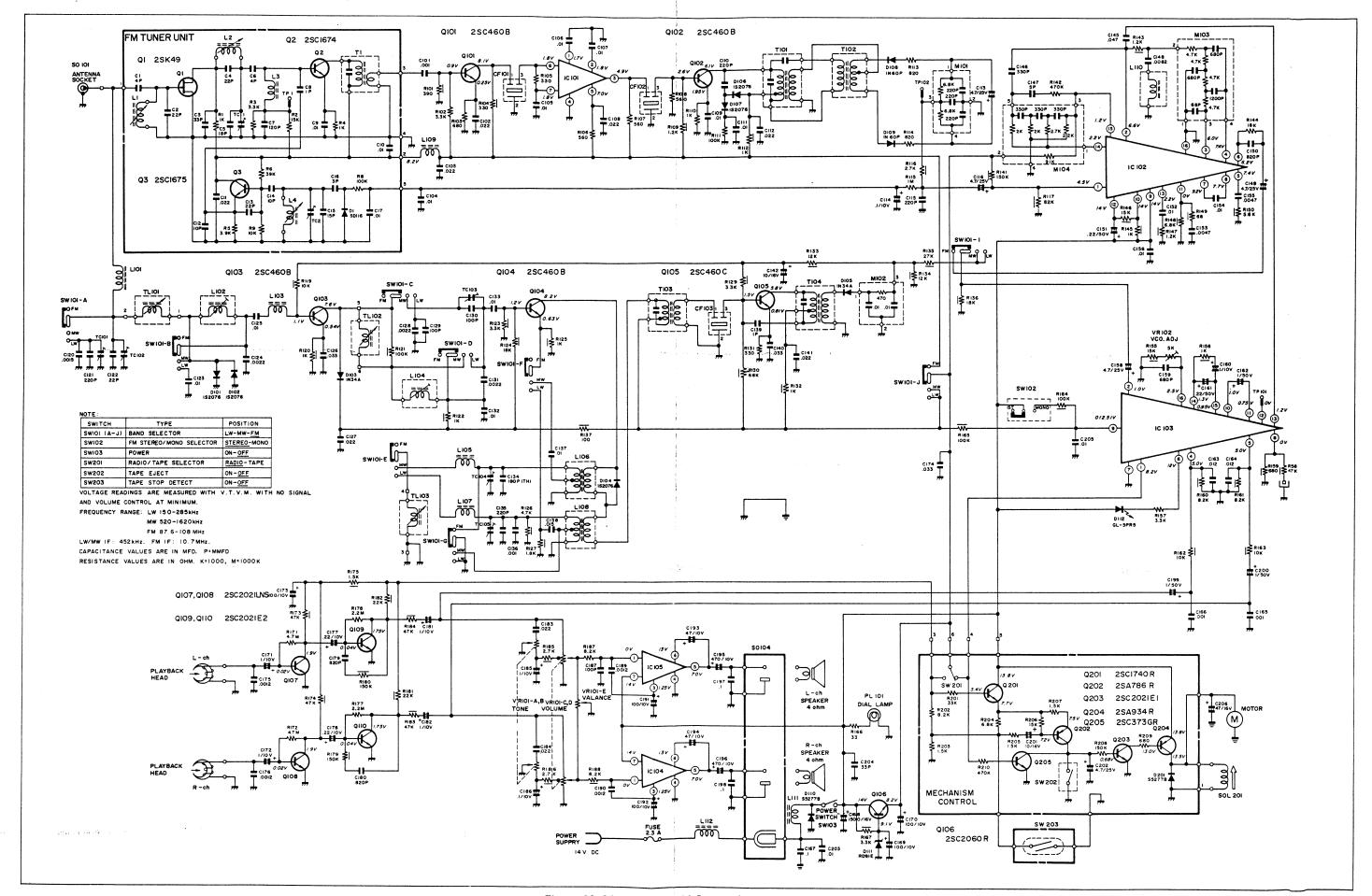


Figure 29 SCHEMATIC DIAGRAM (RG-5800E)

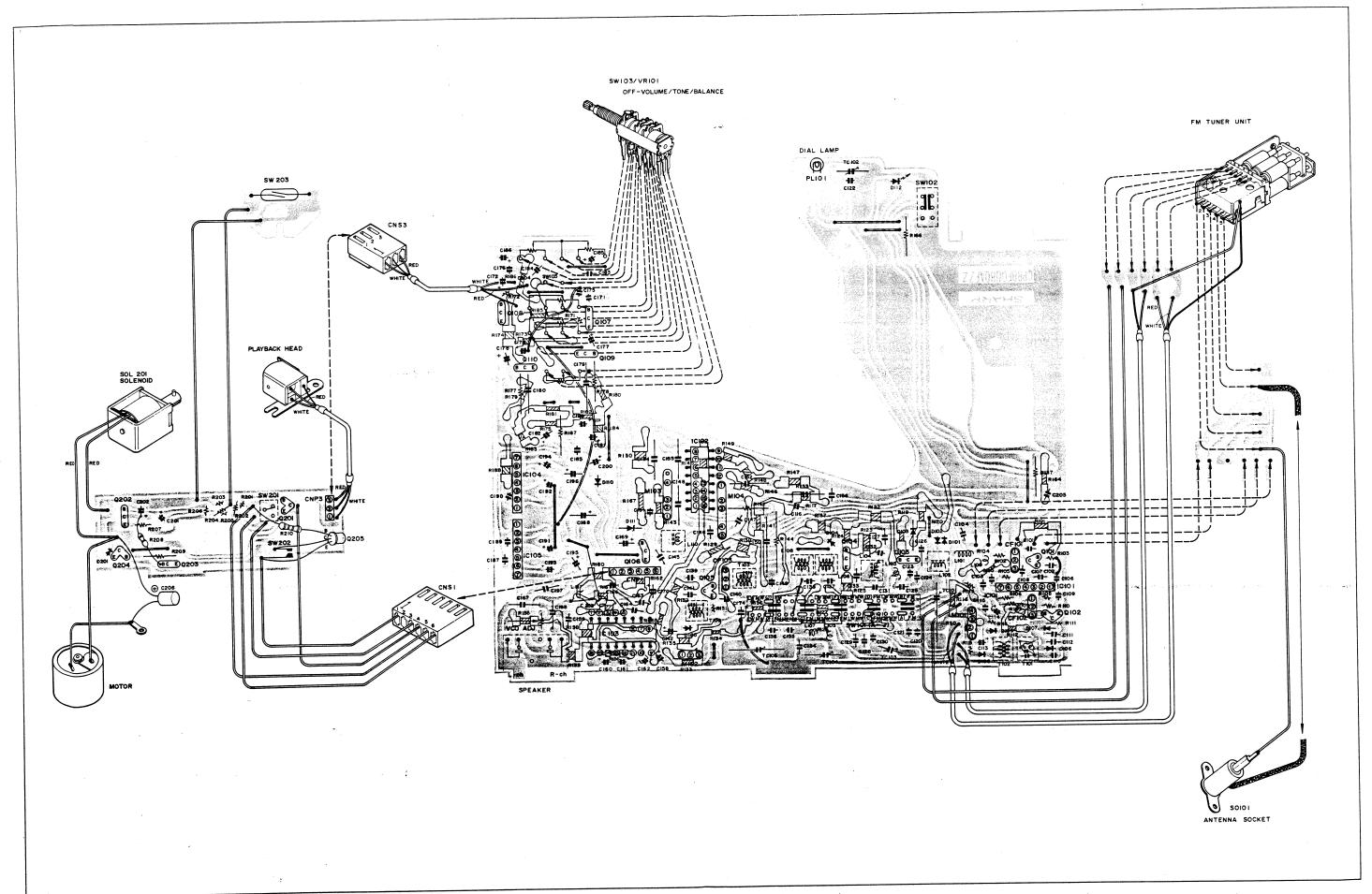


Figure 30 WIRING CONNECTIONS (RG-5800E)

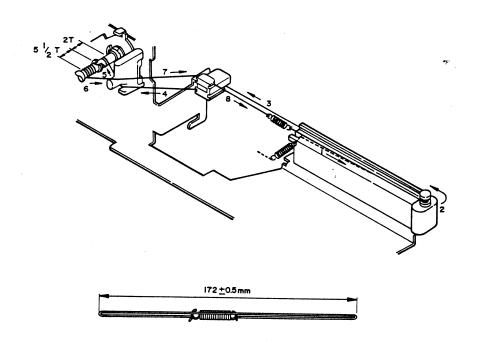


Figure 31 DIAL CORD STRINGING

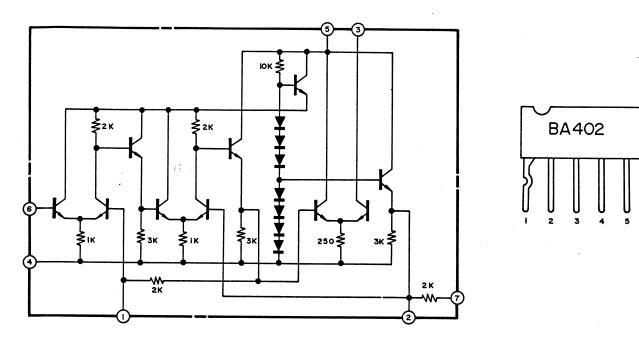


Figure 32 EQUIVALENT CIRCUIT OF IC101

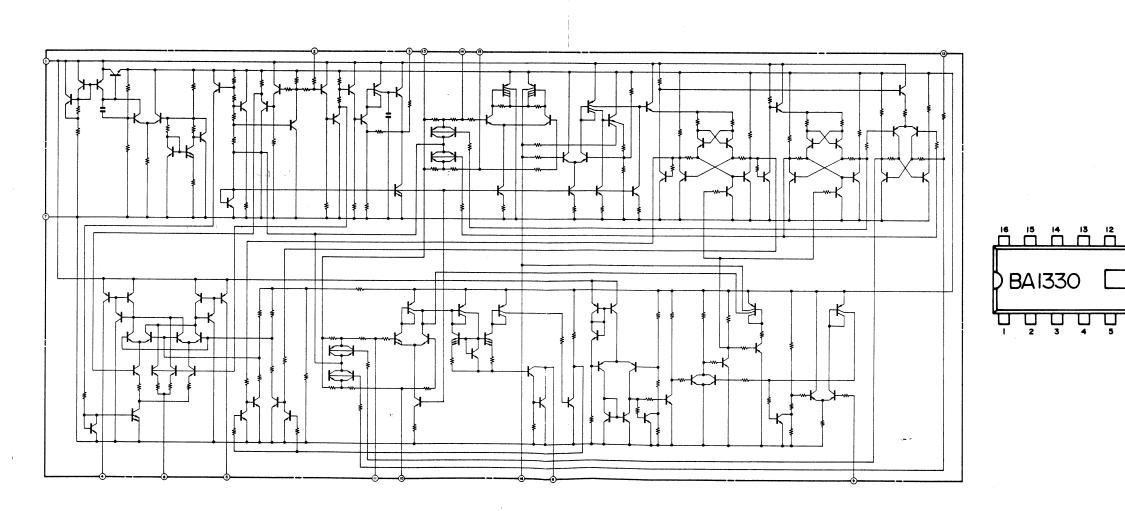


Figure 33 EQUIVALENT CIRCUIT OF IC103

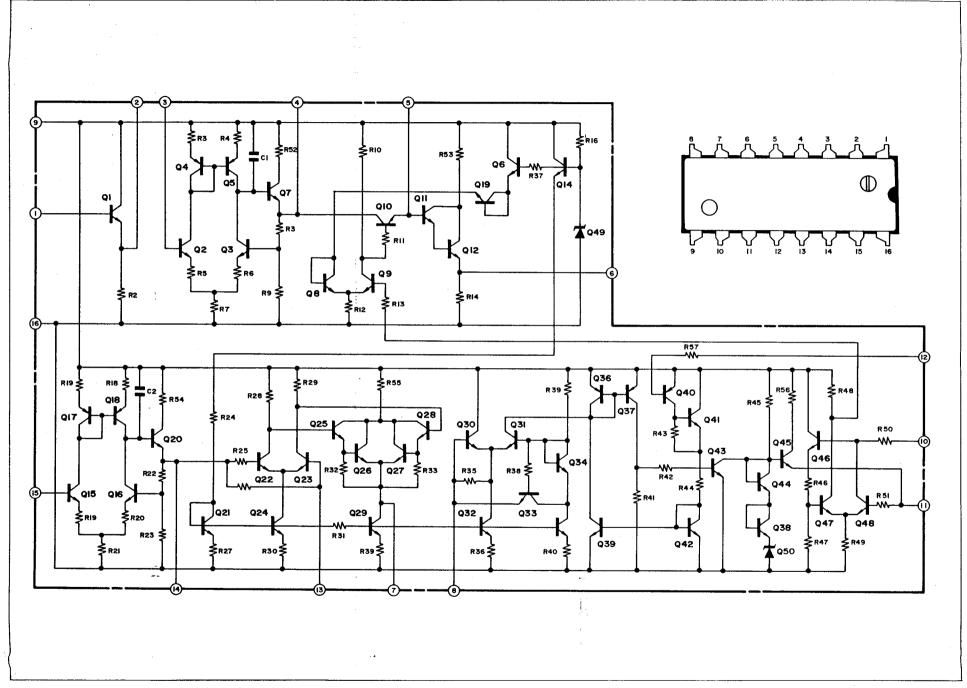


Figure 34 EQUIVALENT CIRCUIT OF IC102

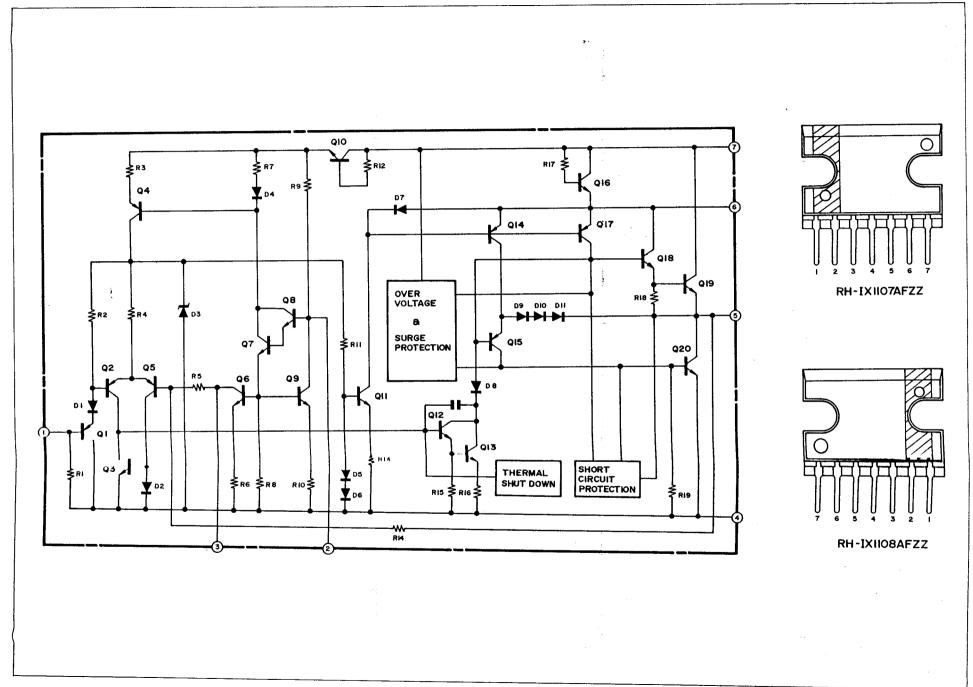


Figure 35 EQUIVALENT CIRCUIT OF IC104 and IC105

## REPLACEMENT PARTS LIST

#### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- 1. MODEL NUMBER 2. REF. NO.
- 3. PART NO.
- 4. DESCRIPTION

REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
				L102	RCILA0301AFZZ	LW Antenna	AB
	INTEGR	ATED CIRCUITS		L103	RCILC0051AFZZ	Noise Filter	AC
				L104	RCILA0301AFZZ	LW RF	AB
IC101	RH-IX0932AFZZ	FM IF Amp. (BA402)	AM	L105	RCILC0065AFZZ	MW Oscillation	AC
IC102	RH-IX1110AFZZ	ANSS (HA11219)	AM	L106	RCILB0322AFZZ	MW Oscillation	AD
IC103	RH-IX1109AFZZ	PLL FM Stereo Demodulator	AM	L107	RCILCO060AFZZ	LW Oscillation	AC
	D	(BA1330)		L108	RCILB0307AFZZ	LW Oscillation	AD
IC104	RH-IX1107AFZZ	Audio Power Amp.	AN	L109	RCILC0051AFZZ	Power Filter	AC
10405	D	(μPC1181H)		L110	RCILZ0061AFZZ	19kHz Trap	AE
IC105	RH-IX1108AFZZ	Audio Power Amp. (µPC1182H)	AN	L111	RCILF0067AFZZ	Power Filter	AD
					TRAN	ISFORMERS	
	TRA	ANSISTORS				· -	
				T101	RCILI0185AFZZ	FM Discriminator	AE
Q101	VS2SC460-B/-1	FM IF Amp. (2SC460B)	AC	T102	RCILI0182AFZZ	FM Discriminator	AE
Q102	VS2SC460-B/-1	FM IF Amp. (2SC460B)	AC	T103	RCILI0238AFZZ	AM IF	AD
Q103	VS2SC460-B/-1	AM RF Amp. (2SC460B)	AC	T104	RCILI0170AFZZ	AM IF	AD
Q104	VS2SC460-B/-1	AM Converter (2SC460B)	AC				1
Q105	VS2SC460-C/-1	AM IF Amp. (2SC460C)	AC				
Q106	VS2SC2060R/-1	Voltage Regulator (2SC2060R)	AD		F	ILTERS	
Q107	VS2SC2021 LNS1	Tape Pre Amp. (2SC2021 LNS)	AC				
Q108	VS2SC2021 LNS1	Tape Pre Amp. (2SC2021 LNS)	AC	CF101	RFILF0009AFZZ	Ceramic, 10.7MHz, FM IF	AE
Q109	VS2SC2021E21F	Tape Pre Amp. (2SC2021E2)	AB	CF102	RFILF0009AFZZ	Ceramic, 10.7MHz, FM IF	AE
Q110	VS2SC2021E21F	Tape Pre Amp. (2SC2021E2)	AB	CF103	RFILA0059AFZZ	Ceramic, 452kHz, AM IF	AD
Q201	VS2SC1740R/-1	Solenoid Control (2SC1740R)	AC				
Q202	VS2SA786-R/-1	Solenoid Control (2SC786R)	AC		DAOMA	050 0100.UT	
Q203 Q204	VS2SC2021E11F	Solenoid Control (2SC2021E1)	AB		PACKA	GED CIRCUIT	
Q205	VS2SA934-R/-1	Solenoid Drive (2SA934R)	AD	M101	DANTA 010FA F77	0.014	1
Q205	V\$2SC373-G/-1	Solenoid Control (2SC373GR)	AC	M101 M102	RMPTA0105AFZZ	6.8K ohm x 2 + 220PF x 3	AC
				M102 M103	RMPTA0108AFZZ RMPTA0107AFZZ	470 ohm + .01 MFD x 2	AC
				101103	NIVIF I AUTU/AFZZ	4.7K ohm x 4 + 68PF + 680PF x 2 + 1200PF	AG
				M104	RMPTA0106AFZZ	2K ohm x 2 + 2,7K ohm + 22K	AF
					1101 TAO100A1 22	ohm +91K ohm +330PF x 3	AF
	. 1	DIODES				51111 1 511 51111 1 5561 1 X 3	
D101	VHD1S2076//-1	Protector (1S2076)	AG		co	NTROLS	
D102	VHD1S2076//-1	Protector (1S2076)	AG				
D103	VHD1N34A///-1	AM Overload (1N34A)	AC	VR101	]	Volume/Tone/Balance Control	AU
D104	VHD1S2076//-1	Stabilizer (1S2076)	AG	(A∼E),	RVR-B0164AFZZ	and Power Switch	
D105	VHD1N34A///-1	AM Detector (1N34A)	AC	SW103	J		
D106	VHD1S2076//-1	Noise Limiter (1S2076)	AG	VR102	RVR-M0003SGZZ	5K ohm (B), VCO Frequency	AC
D107	VHD1S2076//-1	Noise Limiter (1S2076)	AG			Adjustment	
D108	VHD1N60////-3	FM Detector (1N60P)	АН	TC101	RTO-A1004AFZZ	Trimmer, LW Antenna	АН
D109	VHD1N60///-3	FM Detector (1N60P)	AH	TC102	RTO-A1053AFZZ	Trimmer, MW Antenna	AD
D110	VHDS5277B//-1	Protector (S5277B)	AB	TC103	RTO-A1052AFZZ	Trimmer, MW RF	AD
D111	VHERD9.1ED/-1	Zener (Voltage Regulator)	AC	TC104	RTO-A1052AFZZ	Trimmer, MW Oscillation	AD
D444	NUBOL EDDE 45	(RD9.1E)		TC105	RTO-A1004AFZZ	Trimmer, LW Oscillation	AH
D112	VHPG L-5PR5/1F	FM Stereo Indicator	AD			İ	
D201	VHDS5277B//-1	(GL-5PR5) Protector (S5277B)	АВ		CAP	ACITORS	
				C101	VCQYKU1HM102M	001MED 50V +20% A4.1.	<u> </u>
		COILS		C101	VCTYPU1EX223K	.001 MFD, 50V, ±20%, Mylar .022 MFD, 25V, ±10%, Ceramic	AB
				C102	VCTYPU1EX223M	.022MFD, 25V, ±20%, Ceramic	AB AA
L101	RCILCO065AFZZ	Choke	AC	C104	VCTYPU1EX103M	.01MFD, 25V, ±20%, Ceramic	AA
			•		• •		

# PARTS LIST

C108		REF. NO.	PART NO.	DESCRIPTION	CODE	REF.	PART NO.	DESCRIPTION	CODE
C107	C.	105	VCTYPU1EX103M	.01 MFD, 25V, ±20%, Ceramic	AA		VCOSMULHS691	690BE 50V +FW C	
C108	C.	106	VCTYPU1EX103M	.01MFD, 25V, ±20%, Ceramic		1			
C109	C1	107	VCTYPU1EX103M	.01MFD, 25V, ±20%, Ceramic	1	1			
C110			VCTYPU1EX223K		AB	1			,
C111					1				AB
C113			VCRYPU1HB221J	220PF, 50V, ±5%, Ceramic	АВ	C163	VCTYPU1EX123K		
C113				.01MFD, 25V, ±20%, Ceramic	AA	C164			
C114 VCAAAU1AB104M IMPD, 10V, ±20% Caramic C116 VCAAVI1HMIDSM VCAAVI1HBIDSD VCAAVI1HBIDSD VCAAVI1HBIDSD VCAAVI1HBIDSD VCAAVI1HBIDSD VCAAVIIHBIDSD VCAAVIIHBI				.022MFD, 25V, ±10%, Ceramic	AB	C165			
C114	C1	13	VCEAAU1EW475A	4.7MFD, 25V, +75 -10%,	AB	C166	VCTYPU1EX102K		
C115   VCRYPUIHB221   C126   VCQYKUIHM152   C127   VCQYKUIHM103M   C128   VCQYKUIHM222   VCQYKUIHM103M   C128   VCQYKUIHM103M   C128   VCQYKUIHM103M   VCQYKUIHM103M   VCQYKUIHM103M   VCQYVQUIHM103M   VCQYKUIHM103M   VCQYKUIHM103M   VCQYKUIHM103M   VCQYYQUIHM103M   VCQYKUIHM103M   VCQXKUIHM103M   VCQYKUIHM103M   VCQXKUIHM103M   VCQXKUIHM103M   VCQXKUIHM103M   VCQXXIIHM103M   VCQ				Electrolytic		C167			
C115	C1	14	VCAAAU1AB104M	.1MFD, 10V, ±20%,	AC				~
C116   VCEAAUIEWATSA   ZJUPF, 50V, ±5%, Ceramic   AB   AB   AB   AB   AB   AB   AB   A					ŀ	C168	RC-EZ1075AFZZ		ΔF
AB   C159   VCCXAUIHM1521   C172   VCCXPUHH8221   C172   VCCXPUHH8221   C172   VCCXPUHH8221   C172   VCCXPUHH8221   VCCXPUHH80101   C172   VCCXPUHH80101   C172   VCCXPUHH80101   C172   VCCXPUHH80101   C172   VCCXPUHH80101   C172   VCCXPUHH80101   C172   VCCXPUHH80101   VCCXPUHH80101   VCCXPUHH80101   C172   VCCXPUHH80101   VCCXPUHR901   VCCXPUHR9				220PF, 50V, ±5%, Ceramic	AB				~-
C120	C1	16	VCEAAU1EW475A	4.5MFD, 25V, +75 -10%,	AB	C169	RC-EZS107AF1A		ΔR
C121					1				~0
C122					AC	C170	RC-EZS107AF1A		ΔR
C123				220PF, 50V, ±5%, Ceramic	АВ				70
C124			VCCSPU1HL220J		AA	C171	VCAAKU1AA105M		١٨٥١
C125	C1	23	VCTYPU1EX103M	.01MFD, 25V, ±20%, Ceramic	AA	C172			
C126	C1	24	VCQYKU1HM222M		l .	ľ			1
C126   VCTYPUIEX333M			-VCQYKU1HM103M		i		ווייים בבטוטאווין א		AB
Caramic	C1	26 <sub>/</sub>	VCTYPU1EX333M			C174	VCTVPH1EV333M	•	1
C128		-				i			1
Caramic	C1.	27	VCTYPU1EX223M		ΔΔ	0.73	VCTTFOTEXTZZK		AA
C128						C176	VCTVDH1EV133V		
C139	C1:	28	VCQYKU1HM222J		A D	C170	VCI TFUTEXTZZK	1	AA
C131	C1:	29				C1 77	VCA A KUITA A 00414		ĺ
C131 VCTYPU1EX222M				100PE 50V ±5% Coronia		CITT	VCAARUTAA224M		AC
Caramic						C1 70	V/04 A I/() / A A B B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A A B A		-
C132 VCTYPUIEX103M	-		TOTAL CITE ALEXA	· · · · · · · · · · · · · · · · · · ·	AA	C176	VCAAKUTAA224M		AC
C133 VCQYKU1HM103M	C13	32	VCTYPU1EX103M			C1 70	\\O\\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		
C134   VCCTPU1HH181J   180PF (TH), 50V, ±5%, Ceramic C135   VCRYPU1H8221J   220PF, 50V, ±5%, Ceramic O.01MFD, 50V, ±20%, Mylar VCCYVKU1HM102K   0.01MFD, 50V, ±20%, Mylar C139   VCCYVKU1HM102K   0.01MFD, 50V, ±20%, Mylar C139   VCCSPU1HL1R0C   VCCYVKU1HM33M   VCCYPU1EX223K   0.03MFD, 50V, ±20%, Mylar VCTYPU1EX223K   0.03MFD, 50V, ±20%, Mylar VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCCYVKU1HM33M   VCCYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCCYVKU1HM33M   VCCYPU1EX223K   0.02MFD, 50V, ±20%, Mylar VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCTYPU1EX223K   0.02MFD, 50V, ±20%, Lettrolytic C140   VCTYPU1EX223K   0.02MFD, 50V, ±20%, Lettrolytic C140   VCTYPU1EX223K   0.02MFD, 50V, ±20%, Lettrolytic C140   VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C141   VCTYPU1EX223K   0.02MFD, 50V, ±20%, Lettrolytic C140   VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCTYPU1EX223K   0.02MFD, 25V, ±10%, Ceramic C140   VCTYPU1EX223K   0.02MFD, 25V, ±0%, Ceramic C140   VCTYPU1EX223K   0.002MFD, 25V, ±0%, Cer								820PF, 50V, ±10%, Ceramic	AA
C135 VCRYPU1HB221J Ceramic 220PF, 50V, ±5%, Ceramic 220PF, 50V, ±50%, Ceramic 22					1			820PF, 50V, ±10%, Ceramic	AA
C136 VCRYPU1HB221J 220PF, 50V, ±5%, Ceramic C136 VCQYKU1HM102K 001MFD, 50V, ±10%, Mylar C137 VCQYKU1HM103M 01MFD, 50V, ±20%, Mylar C139 VCQYKU1HM103M 01MFD, 50V, ±20%, Mylar C139 VCCSPU1HL1R0C VCQYKU1HM333M 033MFD, 50V, ±20%, Mylar C141 VCTYPU1EX223K 022MFD, 25V, ±10%, Ceramic 033MFD, 50V, ±20%, Mylar C141 VCTYPU1EX223K 022MFD, 25V, ±10%, Ceramic 033MFD, 50V, ±20%, Mylar C141 VCTYPU1EX23X 022MFD, 25V, ±10%, Ceramic 033MFD, 50V, ±20%, Mylar 047MFD, 25V, ±10%, Ceramic 047MFD, 25V, ±10%, Electrolytic 047MFD, 25V, ±10%, Ceramic 047MFD, 25V, ±20%, Ceramic 047MFD, 25V, ±20%, Ceramic 047MFD, 25V, ±20%, Ceramic 047MFD, 25V, ±20%, Ceramic 0582MFD, 25V, ±30%, Cera	•	•	VCC11 0111111013		AB			1MFD, 10V, ±20%, Electrolytic	AD
C136	C13	35	VCRVPH1HR221H					1MFD, 10V, ±20%, Electrolytic	AD
C137						C183	VCI YPU1EX223K	.022MFD, 25V, ±10%,	AB
C138					- 1			Ceramic	-
C139 VCCSPU1HL1ROC 1PF, 50V, ±25PF, Ceramic C140 VCQYKU1HM333M .033MFD, 50V, ±20%, Mylar C141 VCTYPU1EX223K .022MFD, 25V, ±10%, Ceramic C141 VCTYPU1EX23K .022MFD, 25V, ±10%, Ceramic C142 VCEAAU1CW106Y 10MFD, 16V, +50 –10%, Electrolytic .047MFD, 25V, ±20%, Ceramic C147 VCCSPU1HL5ROC VCTYPU1EX473M .002MFD, 25V, ±20%, Ceramic C148 VCTYPU1EX473M .0082MFD, 25V, ±20%, Ceramic C149 VCEAAU1EW475A .0082MFD, 25V, ±30%, Ceramic C150 VCKYAT1HB821K 820PF, 50V, ±25PF, Ceramic A2M C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C153 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX103N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX103M .0047MFD, 25V, ±30%, Ceramic C156 VCT					- 1	C184	VCTYPU1EX223K	.022MFD, 25V, ±10%,	АВ
C140 VCQYKU1HM333M .033MFD. 50V, ±20%, Mylar VCTYPU1EX223K .022MFD, 25V, ±10%, Ceramic C142 VCEAAU1CW106Y .047MFD, 25V, ±20%, Electrolytic Ceramic C244 VCTYPU1EX473M .047MFD, 25V, ±20%, Ceramic C347 VCCSPU1HL5R0C SFF, 50V, ±25FF, Ceramic C148 VCTYAT1EX82N .0082MFD, 25V, ±30%, Ceramic C150 VCKYAT1HB821K .22MFD, 25V, ±10%, Ceramic S20FF, 50V, ±25FP, Ceramic C151 VCEALU1HC224M .22MFD, 25V, ±10%, Ceramic C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX103N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1							4		
C141 VCTYPUIEX223K					1	C185	VCAAAU1AB104M		AC
C142 VCEAAU1CW106Y 10MFD, 16V, +50 -10%, Electrolytic 10MFD, 16V, +50 -10%, Electrolytic 10MFD, 16V, +50 -10%, Electrolytic 10MFD, 25V, ±20%, Ceramic C145 VCTYPU1EX473M .047MFD, 25V, ±20%, Ceramic C147 VCCSPU1HL5R0C SPF, 50V, ±25PF, Ceramic C148 VCTYAT1EX822N .0082MFD, 25V, ±30%, Ceramic C149 VCEAAU1EW475A 4.7MFD, 25V, ±30%, Electrolytic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .0									ļ
C142   VCEAAU1CW106Y   10MFD, 16V, +50 -10%,   Electrolytic   C187   VCRYPU1EX122K   C189   VCTYPU1EX122K   C189   C189   VCTYPU1EX122K	C1-	• •	VCTTPUTEX223K		AB	C186	VCAAAU1AB104M	.1MFD, 10V, ±20%,	AC
Electrolytic   C189	C14	2	VCE A ALIA OMA COV		- 1			Electrolytic	ł
C145 VCTYPU1EX473M	C14	-2	VCEAAUTCW106Y		AB	C187	VCRYPU1HB101J	100PF, 50V, ±5%, Ceramic	AA
Ceramic Ceramic Ceramic Ceramic Ceramic Ceramic Ceramic Support 50V, ±5%, Ceramic Support 50V, ±5%, Ceramic Ceramic Ceramic Country VCCSPU1HL5R0C 5PF, 50V, ±25PF, Ceramic Country VCCSPU1HL5R0C 5PF, 50V, ±25PF, Ceramic Country Ceramic Ceramic Ceramic Ceramic Ceramic Cips Cips Ceramic Cips Cips Cips Cips Cips Cips Cips Cips	C1.4	-	\(CT\\D\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		- 1	C189	VCTYPU1EX122K		- 1
C146	C14	0	VCTYPUTEX473M		AB				
C140	C1.4	_	1/001/01/1/1000	1		C190	VCTYPU1EX122K	.0012MFD, 25V, ±10%,	AA
C148 VCTYAT1EX822N					AB				
C149 VCEAAU1EW475A 4.7MFD, 25V, ±30%, Ceramic C150 VCKYAT1HB821K 820PF, 50V, ±10%, Ceramic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX10					AA	C191	RC-EZS107AF1A	100MFD, 10V, +50 -10%	ΔR
C149 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C150 VCKYAT1HB821K 820PF, 50V, ±10%, Ceramic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic .01MFD, 25V, ±30%, Ceramic C153 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX103M .01MF	C14	8	VCTYAT1EX822N		AA				~
C150 VCKYAT1HB821K B20PF, 50V, ±10%, Ceramic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYP	~	_		Ceramic	ł	C192	RC-EZS107AF1A		ΔR
C150 VCKYAT1HB821K 820PF, 50V, ±10%, Ceramic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic .22MFD, 50V, ±30%, Ceramic C153 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C156 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C156 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar C199 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar C199 VCEAAU1HW105A 1MFD, 50V, ±75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, ±75 –10%, AB	C14	9	VCEAAU1EW475A	4.7MFD, 25V, +7510%,	AB				70
C150 VCKYAT1HB821K 820PF, 50V, ±10%, Ceramic C151 VCEALU1HC224M .22MFD, 50V, ±20%, Electrolytic .22MFD, 50V, ±20%, Electrolytic .01MFD, 25V, ±30%, Ceramic C153 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C158 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar C199 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar C199 VCEAAU1HW105A 1MFD, 50V, ±75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB		_				C193	VCEAAU1AW476Y	474455 4014 75 4504	лв I
C151 VCEALUTHC224M .22MFD, 50V, ±20%, Electrolytic .22MFD, 50V, ±20%, Electrolytic .01MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±20%, Ceramic .01MFD, 25V, ±20%, Ceramic					AA				76
Electrolytic   C152   VCTYAT1EX103N   .01MFD, 25V, ±30%, Ceramic   C153   VCTYAT1EX472N   .0047MFD, 25V, ±30%, Ceramic   C154   VCTYAT1EX103N   .01MFD, 25V, ±30%, Ceramic   C155   VCTYAT1EX472N   .0047MFD, 25V, ±30%, Ceramic   C156   VCTYAT1EX103M   .01MFD, 25V, ±30%, Ceramic   C156   VCTYPU1EX103M   .01MFD, 25V, ±20%, Ceramic   C156   VCEAAU1EW475A   4.7MFD, 25V, ±20%, Ceramic   C156   VCEAAU1EW475A   4.7MFD, 25V, +75 –10%,   Electrolytic   Electrolytic   C200   VCEAAU1HW105A   1MFD, 50V, +75 –10%,   AB	C15	1	VCEALU1HC224M	.22MFD, 50V, ±20%,	АВ	C194	VCEAAU1AW476Y	474455 4014	<b>AD</b>
C152 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C153 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYAT1EX103M .01MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB				Electrolytic	- 1		_	_	AB
C153 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB				.01MFD, 25V, ±30%, Ceramic	AA	C195	RC-EZS477AF1A	470MED 1014 1004	<u>,                                    </u>
C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±20%, Cerami	C15	3	VCTYAT1EX472N		AA				AC
C154 VCTYAT1EX103N .01MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .0047MFD, 25V, ±30%, Ceramic .01MFD, 25V, ±20%, Cera				Ceramic		C196	BC-EZS477AF1A		
C155 VCTYAT1EX472N .0047MFD, 25V, ±30%, Ceramic C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar AC AB C200 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar AC AC AB C200 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar AC AC AB AB C200 VCEAAU1HW105A 1MFD, 50V, ±75 –10%, AB AB	C15	4	VCTYAT1EX103N	.01MFD, 25V, ±30%, Ceramic	ΔΔ			Floated 11	AC
C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar AC AC AB C200 VCEAAU1HW105A 1MFD, 50V, ±20%, Mylar AC AC AC AB C158 VCQYKU1HM104M .1MFD, 50V, ±20%, Mylar AC AC AC AB AB C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB AB C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB	C15			1	- }	C197	VCOYKU1HM104M	11455 5017 1	
C156 VCTYPU1EX103M .01MFD, 25V, ±20%, Ceramic C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB					. " ,		VCOYKU1 HM104M	184ED 5014 40004 44 4	· 1
C158 VCEAAU1EW475A 4.7MFD, 25V, +75 –10%, AB Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB AB	C156	3	VCTYPU1EX103M	i e	ΔΔ			11455 5014 454	- 1
Electrolytic C200 VCEAAU1HW105A 1MFD, 50V, +75 –10%, AB	C158					3,03	ACCIAMIONA		AB
AB					ا ۵	C200	VCEAAII1 LIMAACEA	44455	]
Electrolytic					1	-200	A CEWWO I UM LODY		AB
				ı	ı			Electrolytic	1

# PARTS LIST

## PARTS LIST

	REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
	C201	VCEAAU1CW106Y	10MFD, 16V, +50 -10%, Electrolytic	АВ	06 07	LCHSM0298AFZZ LCHSS0133AFZZ	Chassis, Sliding Head Base	
	C202	VCEAAU1EW475A	4.7MFD, 25V, +75 –10%,	AB	08	MLEVF0818AFZZ	Lever, Fast Forward/Rewind	АВ
	C202	VCLAAU1LW475A	Electrolytic	~0	09	MLEVF0819AFZZ	Lever, Fast Forward/Rewind	AA
	C203	VCTYPU1EX103M	.01 MFD, 25V, ±20%, Ceramic	AA			Lock	'"
	C204	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic	AA	10	MLEVF0820AFZZ	Lever, Fast Forward/Rewind	AA
	C205	VCTYPU1EX103M	.01MFD, 25V, ±20%, Ceramic	AA	11	MLEVF0821AFZZ	Lever, Play Lock	AA
	C206	RC-EZS476AF1C	47MFD, 16V, +50 –10%,	AB	12	MLEVF0822AFZZ	Lever, Eject	AA
	0200	110 220470/1170	Electrolytic	'	13	MLEVF0823AFZZ	Lever, Fast Forward Return	AB
			Elocal ory tio	İ	14	MLEVF0824AFFW	Lever, Rewind Return	AB
					15	MLEVF0825AFZZ	Lever, Eject Prevent	AA
		RI	ESISTORS		16	MLEVP0116AFZZ	Lever, Cassette Ejector (L)	' ' '
	(Unless c		tors are 1/4W, ±5%, Carbon type.	)	17	MLEVP0117AFZZ	Lever, Cassette Ejector (R)	
	R102	VRD-SU2BY332J	3.3K ohm, 1/8W, ±5%, Carbon		18	MSPRC0168AFFJ	Spring, Flywheel Thrust	AA
	R103	VRD-SU2BY681J	680 ohm, 1/8W, ±5%, Carbon	AA			Adjust	
	R105	VRD-SU2BY331J	330 ohm, 1/8W, ±5%, Carbon	AA	19	MSPRD0193AFFJ	Spring, Sliding Chassis Return	AB
	R106	VRD-SU2BY561J	560 ohm, 1/8W, ±5%, Carbon	AA			(L)	'
	R107	VRD-SU2BY561J	560 ohm, 1/8W, ±5%, Carbon	AA	20	MSPRD0194AFFJ	Spring, Fast Forward/Rewind	AA
	R108	VRD-SU2BY561J	560 ohm, 1/8W, 5%, Carbon	AA		17.01 7.12 0 70 17 17 1	Lock Lever	/ / /
	R110	VRD-SU2BY102J	1K ohm, 1/8W, ±5%, Carbon	AA	21	MSPRD0195AFFJ	Spring, Eject Prevent Lever	AA
	R111	VRD-SU2BY104J	100K ohm, 1/8W, ±5%,	AA	22	MSPRP0189AFFJ	Spring, Head Base Pressure	AB
	,,,,,	1110 0020 1 1010	Carbon	, , ,	23	MSPRP0190AFFJ	Spring, Head Azimuth Adjust	AB
	R113	VRD-SU2BY821J	820 ohm, 1/8W, ±5%, Carbon	AA	24	MSPRT0538AFFJ	Spring, Head Base	AA
	R114	VRD-SU2BY821J	820 ohm, 1/8W, ±5%, Carbon	AA	25	MSPRT0539AFFJ	Spring, Pinch Roller	AB
	R115	VRD-ST2EE105J	1 Meg ohm	AA	26	MSPRT0540AFFJ	Spring, Rewind Gear	AA
	R131	VRD-SU2BY331J	330 ohm, 1/8W, ±5%, Carbon	AA	27	MSPRT0541AFFJ	Spring, Fast Forward Roller	AA
	R142	VRD-ST2EE474J	470K ohm	AA	28	MSPRT0542AFFJ	Spring, Cassette Ejector Lever	AA
	R144	VRD-ST2EE183J	18K ohm	AA	29	MSPRT0543AFFJ	Spring, Cassette Ejector Level Spring, Sliding Chassis Return	AB
	R157	VRD-ST2EE332J	3.3K ohm	AA	23	MOFITTOGGATTS	(R)	46
	R166	VRD-ST2EE330J	33 ohm	AA	30	MSPRT0544AFFJ	Spring, Fast Forward/Rewind	AA
	R171	VRD-SU2EE475J	4.7 Meg ohm	AA	50	WOLLI OOMANI I O	Lever	^^
	R172	VRD-SU2EE475J	4.7 Meg ohm	AA	31	MSPRT0545AFFJ	Spring, Eject Lever	AA
	R177	VRD-ST2EE225J	2.2 Meg ohm	AA	32	NBLTK0127AFZZ	Belt, Flywheel Drive	AC
	R178	VRD-ST2EE225J	2.2 Meg ohm	AA	33	NBLTK0108AFZZ	Belt, Rewind Gear	AC
	R187	VRD-ST2EE822J	8.2K ohm	AA	34	NDAIR0130AFZZ	Turntable, Take-up	AF
	R201	VRD-SU2BY333K	33K ohm, 1/8W, ±10%,	AA	35	NDAIR0131AFZZ	Turntable, Supply	AF
	11201	VIID-3025 1333K	Carbon		36	NFLYC0070AFZZ	Flywheel	AG
	R202	VRD-SU2BY822K	8.2K ohm, 1/8W, ±10%,	AA	37	NPLYR0062AFZZ	Ring Magnet	AE
	11202	VIID-3020 1022K	Carbon		38	NROLP0057AFZZ	Gear, Play	AB
	R203	VRD-SU2BY152K	1.5K ohm, 1/8W, ±10%,	AA	39	NROLVO010AFZZ	Roller Assembly, Fast Forward	AF
	200	VIID GOZD I TOZIK	Carbon	'''	40	NROLX0010AFZZ	Gear Assembly, Rewind	AE
	R204	VRD-SU2BY682K	6.8K ohm, 1/8W, ±10%,	AA	41	NROLY0017AFZZ	Pinch Roller Assembly	AE
	0	VIID 0020 100211	Carbon	'"	42	PGIDM0065AFZZ	Cassette Guide (L)	AB
	R205	VRD-SU2BY152K	1.5K ohm, 1/8W, ±10%,	AA	43	PGIDM0066AFZZ	Cassette Guide (E)	AB
		VII.2 0022 1 10211	Carbon	' "	44	PGUMM0111AF00	Cushion Rubber	AB
	R206	VRD-SU2BY153K	15K ohm, 1/8W, ±10%,	AA	45	RHEDF0054AFZZ	Head, Playback	AR
			Carbon		46	RM07M0080AFZZ	Motor	AV
	R207	VRD-SU2BY152K	1.5K ohm, 1/8W, ±10%,		47	RPLU-0076AFZZ	Solenoid	AL
			Carbon	] ]	48	LX-WZ5012AGZZ	Washer	AA
	R208	VRD-ST2BY154K	150K ohm, 1/8W, ±10%,	AA	49	LX-WZ5018AGZZ	Washer	AA
			Carbon		50	LX-WZ5020AGZZ	Washer	AA
	R209	VRD-ST2EE681J	680 ohm	AA	51	LX-WZ9057AFZZ	Spacer, Flywheel	AA
	R210	VRD-ST2EE474J	470K ohm	AA	52	LX-WZ9058AFZZ	Washer, Lock	AA
				Ì	53	QHWS-3206AGFN	Lug	AA
				1	54	QPWBF0747AFZZ	Printed Wiring Board,	
		MECHAI	NICAL PARTS				Mechanism Control	
					55	QPWBF0756AFZZ	Printed Wiring Board, Lead	_
	01	LANGF0437AFZZ	Bracket, Flywheel	АВ		<del></del>	Switch	
	02	LANGF0438AFZZ	Pushing Arm, Radio/Tape	AB	56	LHLDW3056AFZZ	Wire Holder	AA
نـ .			Selector Switch					' '
	03	LANGF0439AFZZ	Bracket, Mechanism Mounting	AC				
			(L)			MISCE	LLANEOUS	
	04	LANGF0440AFZZ	Bracket, Mechanism Mounting	AC				
			(R)		101	JGCABA3476AFFW	Cabinet, Rear (RG-5800H)	АН
	05	LCHSM0297AFZZ	Chassis, Fixed			GCAB-3055AFFW	Cabinet, Rear (RG-5800E)	
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REF. NO.	PART NO.	DESCRIPTION	CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
102	GCABB3476AFFW	Cabinet, Front	AE	****	LANGT0071AFFW	Suspension Metal	AB
103	GCABC3476AFFW	Cabinet, Bottom	AE		LANGZ0003AFFW	Bracket, Mounting	AB
104	GCABD3476AFFW	Cabinet, Top	AE		LHLDW1075AFZZ	Nylon Band	AA
105	GFTAC1081AFSA	Cassette Door	AE		LX-BZ0223AFFD	Screw (For Transport	
106	GWAKP1073AFSA	Nose Piece	AF			Protection)	
107	HDALP0391AFSA	Dial Scale	AD		LX-BZ0236AFFE	Bolt with Spring and Flat	AA
108	HDAP-0174AF00	Dial Back Plate	AC			Washers, $\phi$ 5 x 14 mm	
109	HINDP0127AFSA	Indication Plate	AF		LX-BZ0260AFFE	Bolt with Spring and Flat	AB
110	HPNLC1242AFSA	Panel	AG			Washers, $\phi$ 5 × 8 mm	
111	HSSND0242AFSA	Dial Pointer	AB		XNESD50-45000	Nut, φ5	AA
112	JKNBK0167AFSA	Knob, Tone Control and Band	AD		XWHSD50-05000	Washer, $\phi$ 5	AA
		Selector		CNP1	QCNCM0503SGZZ	Connector, 5 Pin	AD
113	JKNBM0262AFSA	Knob, FM Stereo/Mono Selector	AB	CNP2	QCNCM217FAFZZ	Connector, 6 Pin (RG-5800H Only)	AC
114	JKNBN0363AFSA	Knob, Power Switch/Volume/	AD	CNP3	QCNCM136CAFZZ	Connecotr, 3 Pin	AB
		Balance and Tuning Control		CNS1	QCNW-0325AFZZ	Wiring Wires with Connector	AF
115	JKNBP0066AFSA	Knob, Eject and FF/REW	AC			(5 Pin)	
116	LANGQ0606AFFW	Arm, Band Selector Switch	AB	CNS2	Not Available	Wiring Wires with Connector	N.A.
117	LB0SH0058AFFW	Boss, Band Selector Lever (A)	AB			(6 Pin) (Part of SO103)	
118	LB0SH0059AFFW	Boss, Band Selector Lever (B)	AB	CNS3	QCNW-0320AFZZ	Shield Wire with Connector	AE
119	MLEVF0831AFFW	Band Selector Lever (A)	AC		QCNW-0321AFZZ	Speaker Cord, 5 m	AP
120	MLEVF0832AFFW	Band Selector Lever (B)	AC			(RG-5800H)	
121	MSPRD0180AFFJ	Spring, Cassette Door	AA		QCNW-0342AFZZ	Speaker Cord, 3.5 m	AN
122	MSPRT0321AFFJ	Spring, Dial Cord	AA			(RG-5800E)	
123	NPLYC0103AFFW	Dial Cord Guide	AB		QCNW-0322AFZZ	Earth Cord	AC
124	NPLYD0050AF00	Dial Cord Guide	AB		QFS-A232BAFNH	Fuse	AC
125	NPLYD0051AF00	Dial Cord Guide	AB		QFSHJ1058AFZZ	Fuse Holder with Coil	AM
126	NSFTZ0065AFZZ	Shaft, Tuning Control/Band Selector	AK	SW101 SW102	QSW-S0180AFZZ QSW-P0174AFZZ	Switch, Band Selector Switch, FM Stereo/Mono	AK AF
127	PC0VU3111AFFW	Lamp Cover	AB			Selector	
128	PC0VZ8055AFZZ	Lamp Cover, Green	AA	SW201	QSW-F0126AFZZ	Switch, Radio/Tape Selector	AE
129	PCUSSQ096AFZZ	Cushion	AA	SW202	QSW-F0127AFZZ	Switch, Tape Eject	AD
130	PRDAR0167AFFW	Heat Sink	AA	SW203	QSW-L0054AFZZ	Switch, Tape Stop Detect	AE
131	PRDAR0175AFFW	Heat Sink	AD	PL101	RLMPM0069AFZZ	Lamp, Dial	AD
132	PSPAZ0074AFZZ	Spacer, Plastic	AD	SO101	QS0CZ0015AFZZ	Antenna Socket	AD
133	PZETF0133AFZZ	Insulation Plate	AC	SO102	QCNW-0324AFZZ	DIN Socket (6 Pole)	AG
134	QLUGL0150AFZZ	Ground Terminal	AB AC	SO103	QCNW-0323AFZZ	DIN Socket (7 Pole) with	AH
135	QPLGD0401AFZZ	Shorting Plug (RG-5800H Only)	AC	SO104	QSOCD0271AFZZ	Connector Speaker Socket	AG
136	QPLGD0402AFZZ	Shorting Plug (RG-5800H Only)	AC	00704	QSOCD0272AFZZ	Speaker Socket (Replacement Only)	
137	RTUNC0124AFZZ	Tuner Unit	BA		SPAKA0520AFZZ	Packing Add.	
138	LX-NZ0058AFFD	Nut, φ9	AA		SPAKC1149AFZZ	Packing Case	
139	PSPAF0052AFFW	Spacer, Metal	AA		TINSZ0120AFZZ	Operation Manual (RG-5800H)	
140	XWHSD92-05140	Washer, φ9.2	AA		TTAGH0039AFZZ	Tag (RG-5800H Only)	[
141	LX-NZ0008SGFD	Nut, φ3	AA		SPAKX0189AFZZ	Packing Add.	
142	LX-HZ0001SGFD	Screw with Washer			SSAKH0097AFZZ	Polyethylene Bag, Set	<b> </b>
143	LX-HZ0051AFFD	Screw with Washer			TTAG-0066AFZZ	Tag, ANSS	
144	QPRBF0080AFZZ	Printed Wiring Board (Printed Resistors)			TINSE0561AFZZ	Operation Manual (RG-5800E)	
145	TLABZ0125AFZZ	Label (RG-5800H Only)					
146	PREFL0066AFZZ	Reflection Paper					